

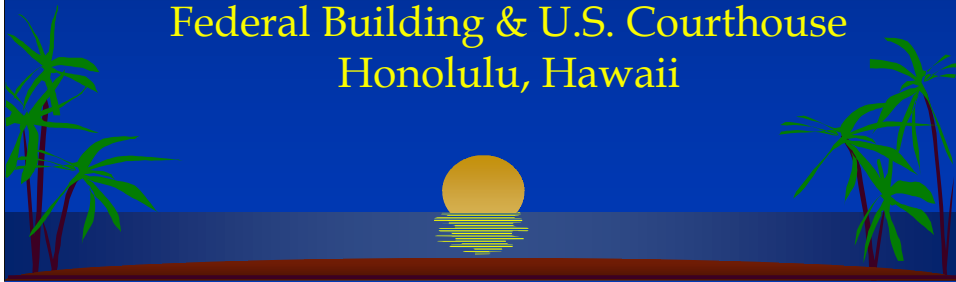
The GSA logo consists of the letters "GSA" in a white, sans-serif font, centered within a solid black square.

CONTRACTING MECHANISM

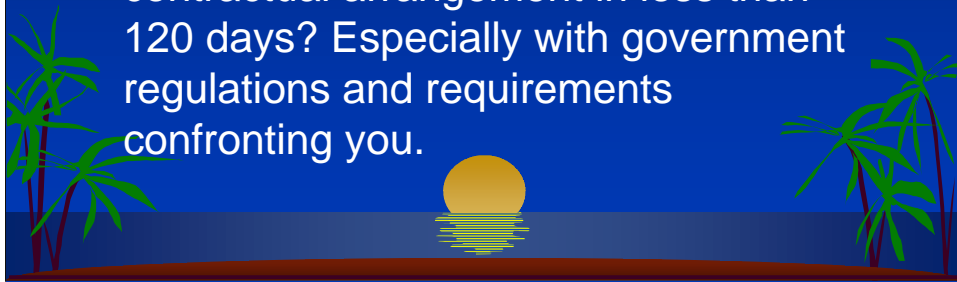
WITH THE U.S. GENERAL SERVICES
ADMINISTRATION, USING THE
BASIC ORDERING AGREEMENT (BOA)



To discuss the BOA as a contracting
mechanism, it is best done by
discussing the project that caused its
creation, which is the following:
CHILLER REPLACEMENT PROJECT
at the
Prince Jonah Kuhio Kalanianaʻole
Federal Building & U.S. Courthouse
Honolulu, Hawaii



- λ How do you turn an environmental mandate by EPA to eliminate CFC's into an energy conservation project?
- λ How do you accomplish a \$4 million retrofit project with only \$2.2 million?
- λ How do you accomplish all the contractual arrangement in less than 120 days? Especially with government regulations and requirements confronting you.



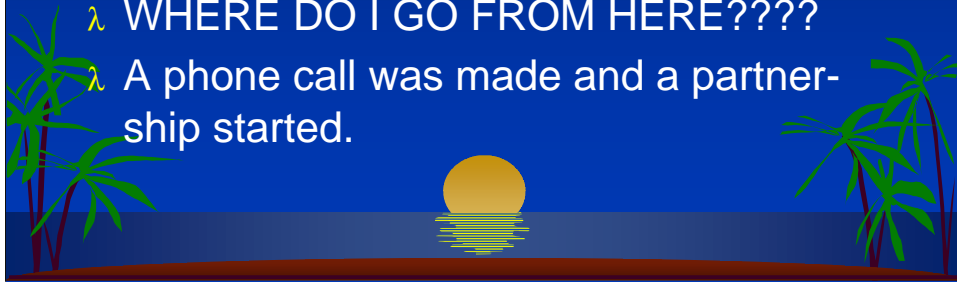
We need to start from the beginning to explain.

- λ Mandate by EPA to remove or retrofit CFC equipment to non-CFC using equipment.
- λ GSA inventories equipment nationwide for CFC using equipment and schedules removal of them.
- λ DOE thru FEMP funds \$25K Energy Audit.



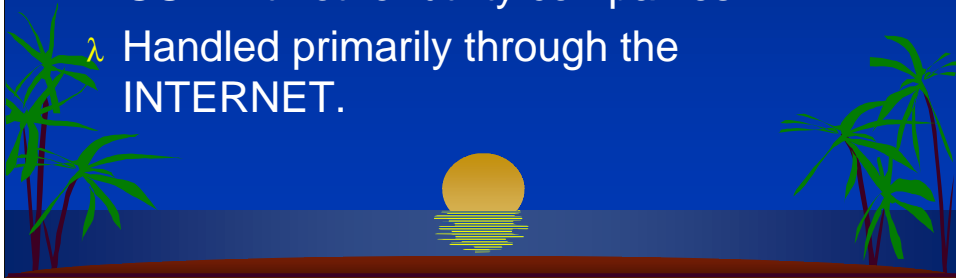
Cont.

- λ Existing chillers (R-12) and cooling towers are 18 years old and presenting maintenance issues.
- λ Oklahoma Bombing causes recession in funding nationwide.
- λ WHERE DO I GO FROM HERE????
- λ A phone call was made and a partnership started.



GSA and HECO Basic Ordering Agreement (BOA)

- λ Commitment by all parties involved.
- λ Format used had already been used by GSA with other utility companies.
- λ Handled primarily through the INTERNET.



BOA Cont.

- λ Negotiations for BOA completed within 45 days from the phone call.
- λ BOA signed November 13, 1995.
- λ Ceremonial signing ceremony held on February 8, 1996.



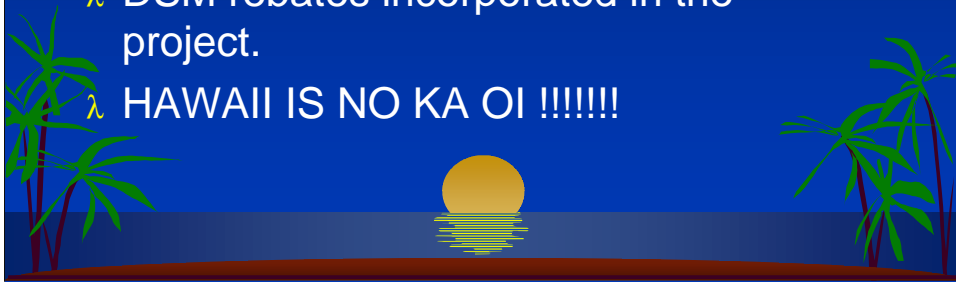
GSA - BOA Highlights

- λ Establishes contracting vehicle that all Federal Agencies can use with HECO to identify, finance and install energy conservation projects.
- λ Enhances GSA's performance of energy projects in Oahu with performance and funding alternatives.



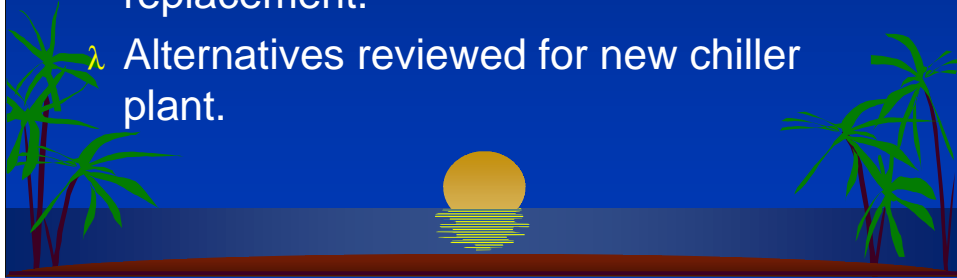
BOA Highlights Cont.

- λ Shattered traditional timeframes for negotiations of similar contracts.
- λ Only project of such magnitude and complexity ever accomplished essentially through the INTERNET.
- λ DSM rebates incorporated in the project.
- λ HAWAII IS NO KA OI !!!!!!!



Chiller Plant Project

- λ Feasibility Study started by HECO through MEH.
- λ Existing chiller plant is 18 years old, R12 refrigerant, cooling towers need replacement.
- λ Alternatives reviewed for new chiller plant.



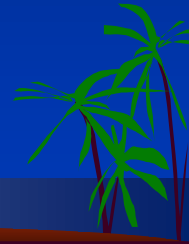
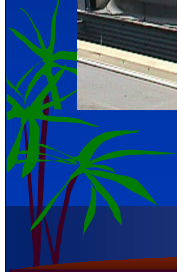
Chiller Plant Project Cont.

- λ Existing Plant:
- λ 2 - 1000 Ton Cent. Chillers (R12)
- λ 2 - 60 Ton Cent. Chillers (R22)
- λ 2 - 1200 Ton Cooling Towers, 4 Cell
- λ Constant volume CW pump system
- λ New Plant
- λ 2 - 950 Ton Cent. Chillers (R-123)
- λ 1 - 200 Ton VSD Cent. Chiller (R-22) for OT
- λ 1 - 60 Ton Recp. Chiller (R-22) for EU
- λ 2 - 1050 Ton Cooling Towers, 2 Cell
- λ Pri./Sec. Pump System

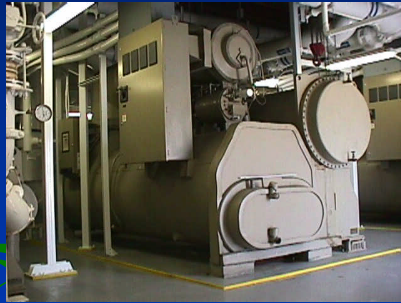
New Cooling Tower



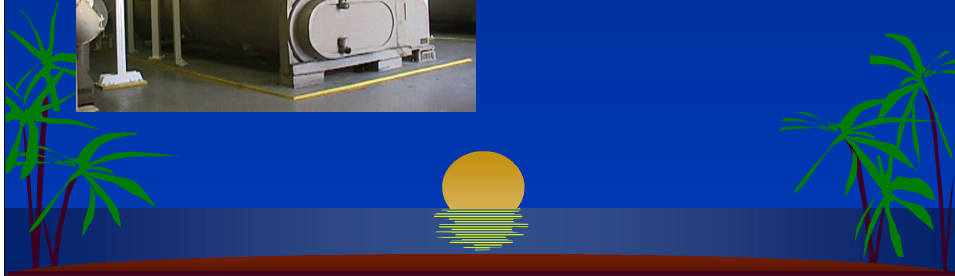
- λ 2 - 1050 Ton Cooling
- λ 2 Cell
- λ Mfr. Baltimore Air Coil



New Centrifugal Chiller



- λ 2 - 950 Ton Centrifugal Chiller
- λ R-123
- λ Mfr. Trane



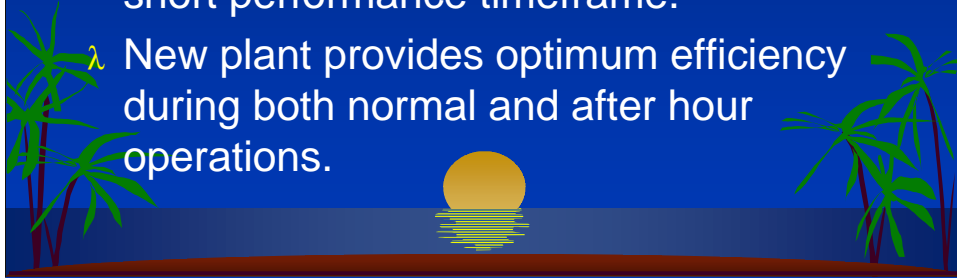
Chiller Plant Project Construction

- λ Design started by MEH.
- λ Construction started by Continental Mechanical of Hawaii (GC).
- λ Project Substantially Complete in May.
- λ Final Acceptance/Commissioning of the system was completed in September 22, 1997. 23 months from start to finish.



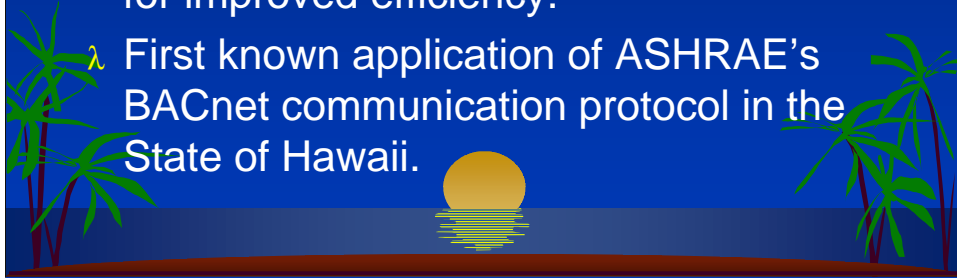
Project Highlights

- λ New plant layout addresses maintenance and service access issues.
- λ Project was fast tracked because of short performance timeframe.
- λ New plant provides optimum efficiency during both normal and after hour operations.



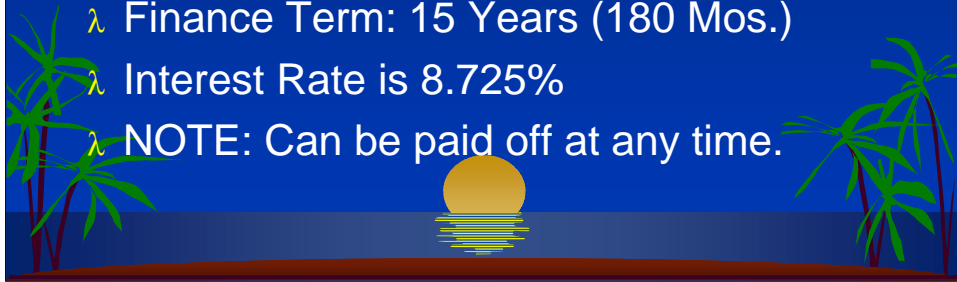
Project Highlights (cont.)

- λ New 200 Ton chiller primarily for after hours support has a variable frequency drive (VFD).
- λ New Cooling Towers were over sized for improved efficiency.
- λ First known application of ASHRAE's BACnet communication protocol in the State of Hawaii.



Financial Terms of the Project

- λ Financing obtained by HECO through Potomac Federal
- λ Amount Financed \$1,837,556
- λ Mo. Payment by GSA to HECO \$18,338
- λ Finance Term: 15 Years (180 Mos.)
- λ Interest Rate is 8.725%
- λ NOTE: Can be paid off at any time.



Financial Performance of the Project

- λ Life Cycle Cost Analysis comparing old plant to new showed a net savings of \$1,451,290
- λ Savings to Investment Ratio of 2.49
- λ Estimated energy savings 1,727,051 kWh
- λ Base Year 1996, April 1997 – First Chiller Installed
- λ 1997 – saved 1,410,000 kWh – Net Gain of \$25,291



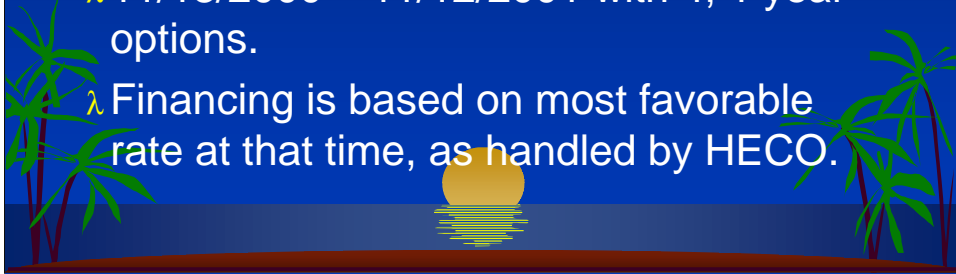
Financial Performance of the Project (Cont.)

- λ 1998 – saved 2,084,000 kWh – Net Gain of \$32,199
- λ 1999 – saved 2,437,000 kWh – Net Gain of \$22,680
- λ 2000 – saved 2,385,000 kWh – Net Loss of <\$130,876>

*Note: 1999 – Net Gain reduced by fuel cost increase by HECO. 2000 – Greatly affected by fuel cost increases by HECO of \$184,218

General BOA Information

- λ Not a contract but an agreement that establishes terms and conditions for a possible contract.
- λ Present contract terms and conditions:
- λ 11/13/2000 – 11/12/2001 with 4, 1 year options.
- λ Financing is based on most favorable rate at that time, as handled by HECO.



General BOA Information (Cont.)

λ Government Agencies presently allowed to use the BOA:

λ DOD, VA, DOE, DOC, DOI, DHHS, HUD, DOT, Dept. of Treasury, FAA, U.S. Mint, USPS, USDA and GSA

*Additional agencies can be added by request and coordination with GSA

PROJECT HAS WON THE FOLLOWING AWARDS:

- λ 1998 GSA National Contracting
Innovation Award
- λ 1998 DOE-FEMP National Award
for Energy and Efficiency
- λ 1999 HECO Institutional Award for
Energy and Efficiency



PROJECT HAS WON THE FOLLOWING AWARDS:

- λ 2000 DOE/EPA Energy Star Building Label, which is awarded to buildings in the top 25% nationwide, in terms of energy performance and maintaining an indoor environment that conforms to industry standards. Measured on a scale of 0 to 100, a building needs to earn a score of 75 or greater. The Prince Kuhio Federal Building earned a score of 99.

Never forget - it can be done!

Aloha and Mahalo

Gerald "Joe" Melanson
GSA Honolulu Property
Management Office

